AMENDED CLAIMS

1. A method of production of (-)-(S)-3-[1-(dimethylamino)ethyl]phenyl-N-ethyl-N-methylcarbamate, i.e. rivastigmine of formula II

or of its hydrogentartrate of formula I

characterized in that methoxyacetophenone of formula VI

is reductively aminated to the compound of formula V

which is thereafter O-dealkylated to the racemic amine of formula IV

which is further resolved by reacting with an optically active acid, whereafter the desired respective diastereoisomer is crystallized and finally converted into the compound of formula III

which, in turn, is reacted, optionally in the form of its alkali salt, with a compound of formula VII

wherein X is a leaving group.

- 2. The method according to claim 1, characterized in that the racemic amine of formula IV is resolved by reacting with (S)-(+)-camphor-10-sulfonic acid.
- 3. The method according to claim 2, characterized in that the racemic amine of states and states formula IV is resolved by reacting with 1 equivalent of (S)-(+)-camphor-10-sulfonic acid.
- 4. The method according to claim 2, characterized in that the racemic amine of formula IV is resolved by reacting with 0.6 equivalent of (S)-(+)-camphor-10-sulfonic acid.
- 5. The method according to any of preceding claims, characterized in that the obtained desired respective diastereoisomer is further re-crystallized.
- 6. The method according to claim 5, characterized in that the obtained desired respective diastereoisomer is further re-crystallized from ethylacetate, optionally in admixture with ethanol.